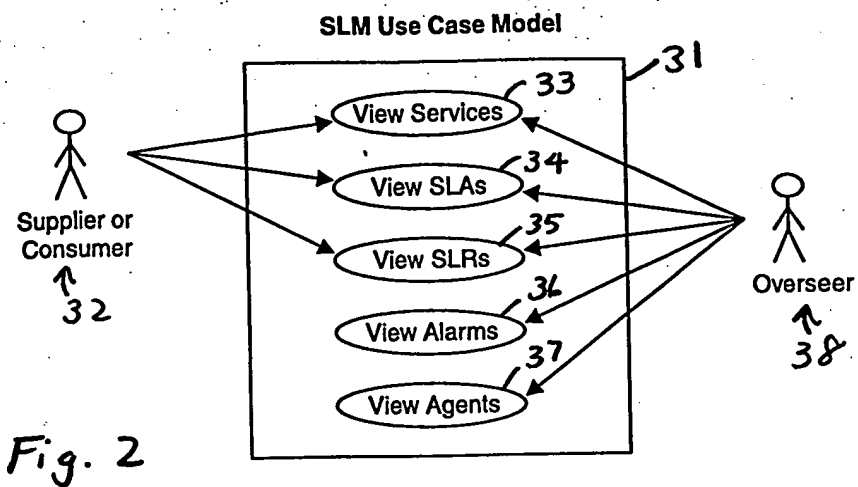


The diagram illustrates a system architecture and its associated metrics. It is organized into several hierarchical levels and components:

- Business Processes (11)**: The top-level entity, which is *composed of* **Services (12)**.
- Services (12)**: These are *composed of* **Components (18)**. Components are further categorized as *is a kind of* Transmission Device (27), Transmission Line (28), Computer System (29), and Application (30).
- Service Level Reports (17)**: These are *composed of* **Service Levels (16)**. Service Levels are *marked by* **Service Parameters (15)**.
- Service Parameters (15)**: These are *measured by* **Service Levels (16)**.
- Component Parameters (19)**: These are *monitored/controlled by* **Components (18)**. Components are also *monitored/controlled by* **Component Parameters (19)**.
- An Agent (20)**: This is *mapped into* **Component Parameters (19)**. An Agent is *is a kind of* Device Agent (21), Traffic Agent (22), System Agent (23), Application Agent (24), Special-Purpose Agent (25), and Multicomponent Agent (26).

Handwritten annotations include "SLM" near the top right, "SLA" near the Service Level Reports, and "10" with an arrow pointing to the top right corner. A dashed box labeled "14" encloses the Service Levels and Service Parameters components.

Fig. 1



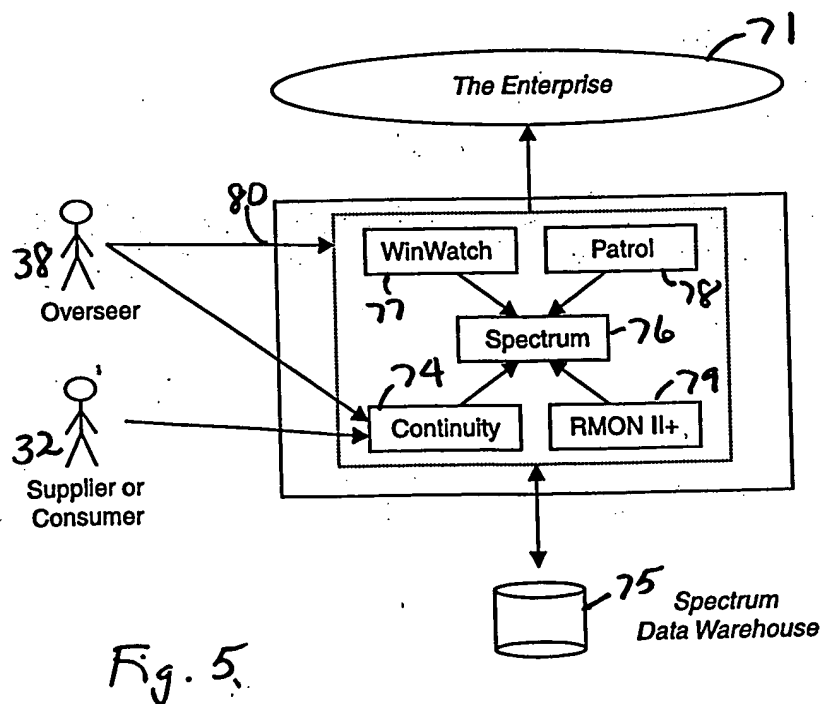
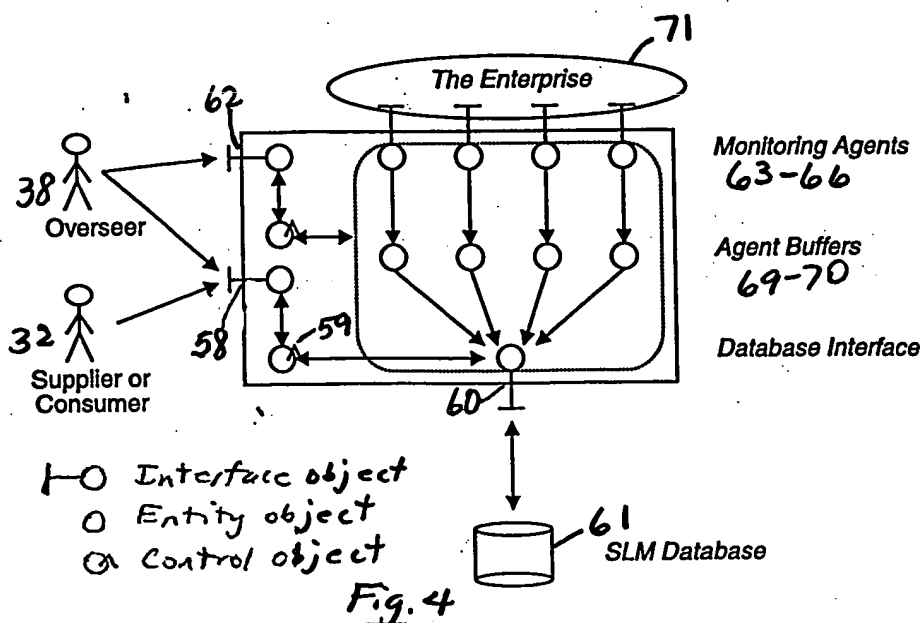
```

graph TD
    subgraph AlarmTypes [40]
        DA[Device Alarm]
        LA[Line Alarm]
        SA[System Alarm]
        AA[Application Alarm]
        UA[User Alarm]
        SA2[Service Alarm]
    end

    EC[Event Correlation 45] -- results in --> AO[Alarm Object 46]
    AO -- handled by --> AN[Alarm Notifier 54]
    AN -- communicates with --> NM[Notifier Medium 53]
    NM -- is a kind of --> AGUI[Alarm GUI 47]
    NM -- is a kind of --> P[Pager 48]
    NM -- is a kind of --> TT[Trouble Ticket 49]
    AGUI -- is a kind of --> S[Siren 50]
    P -- is a kind of --> EM[E-mail 51]
    TT -- is a kind of --> PH[Phone 52]
    AA -- is a kind of --> AO

```

Fig. 3



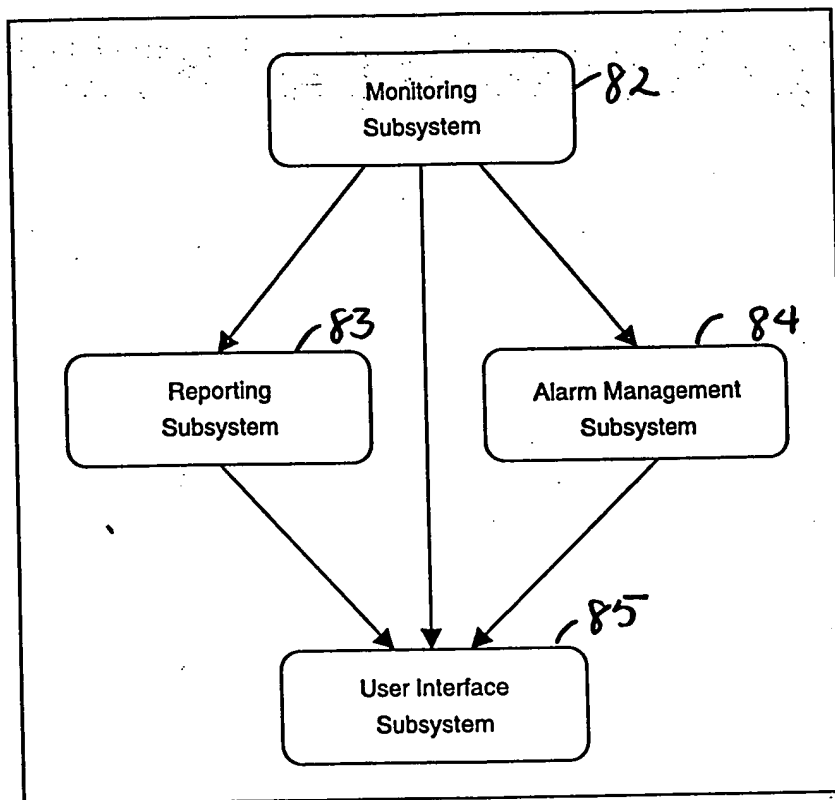


Fig. 6

0405250" 25T92560

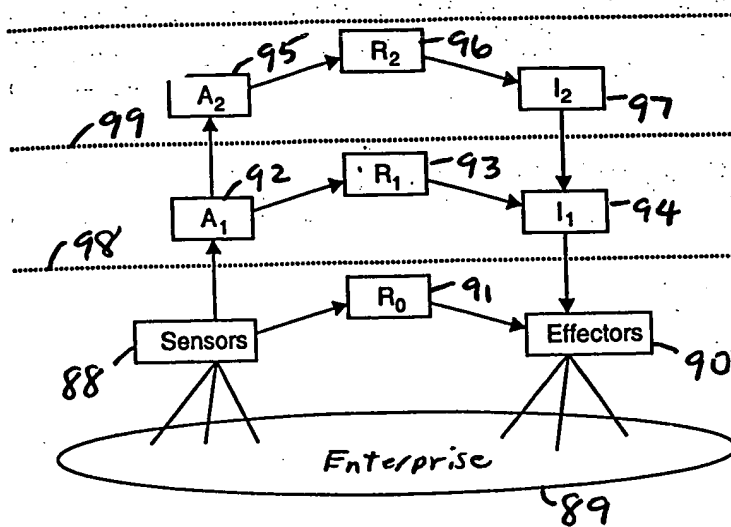


Fig. 7

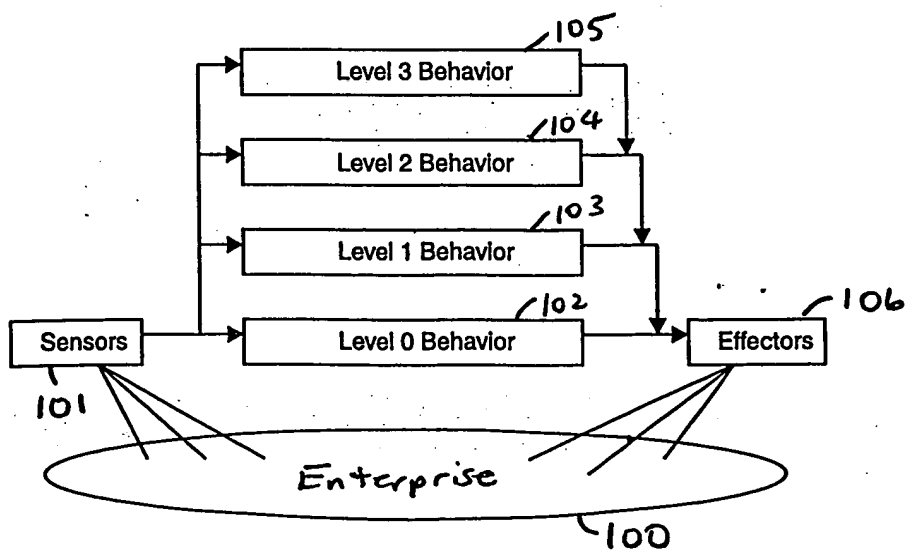


Fig. 8

Level 2 Abstraction, Reasoning, Instruction

**Level 1 Abstraction,
Reasoning, Instruction**

Level 0 Abstraction, Reasoning, Instruction

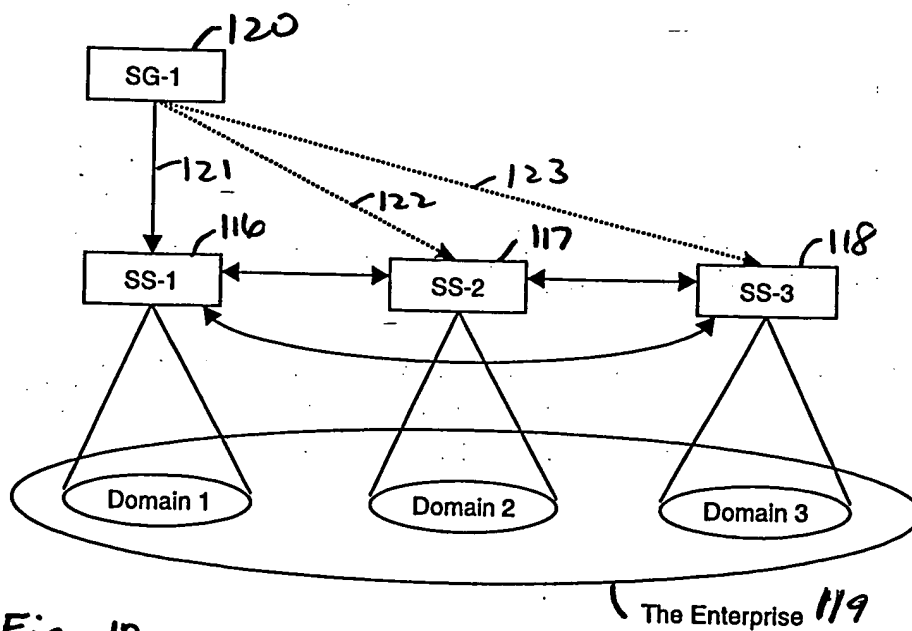
Monitoring

**Auto
Control**

Human Control

Fig. 9

The Enterprise 114



The Enterprise 119

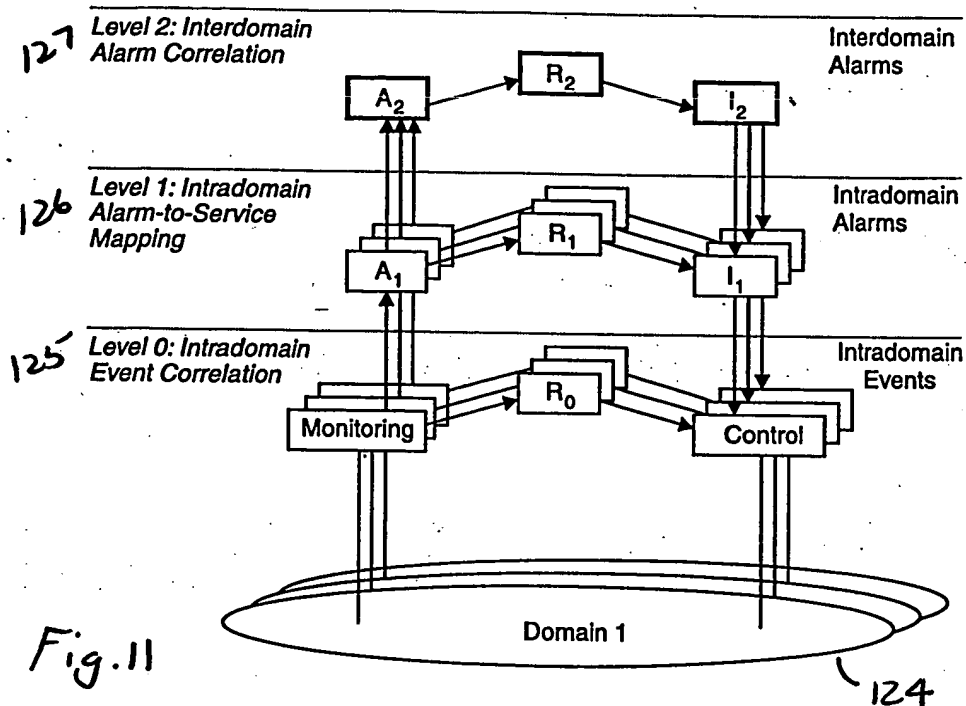
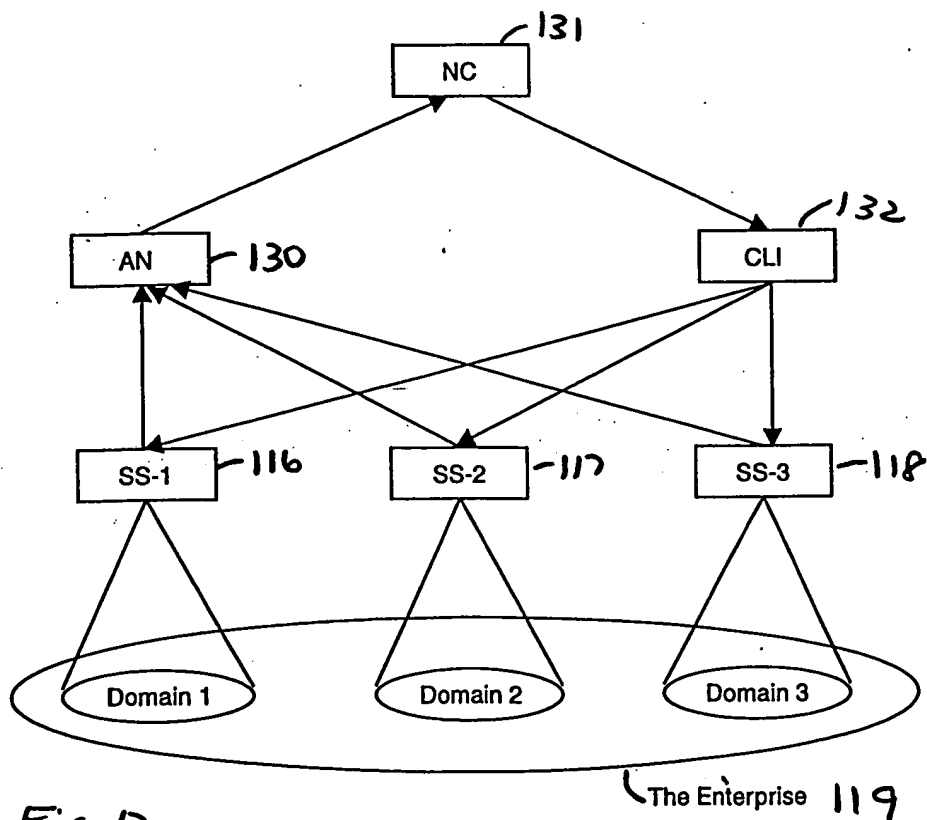


Fig. 12



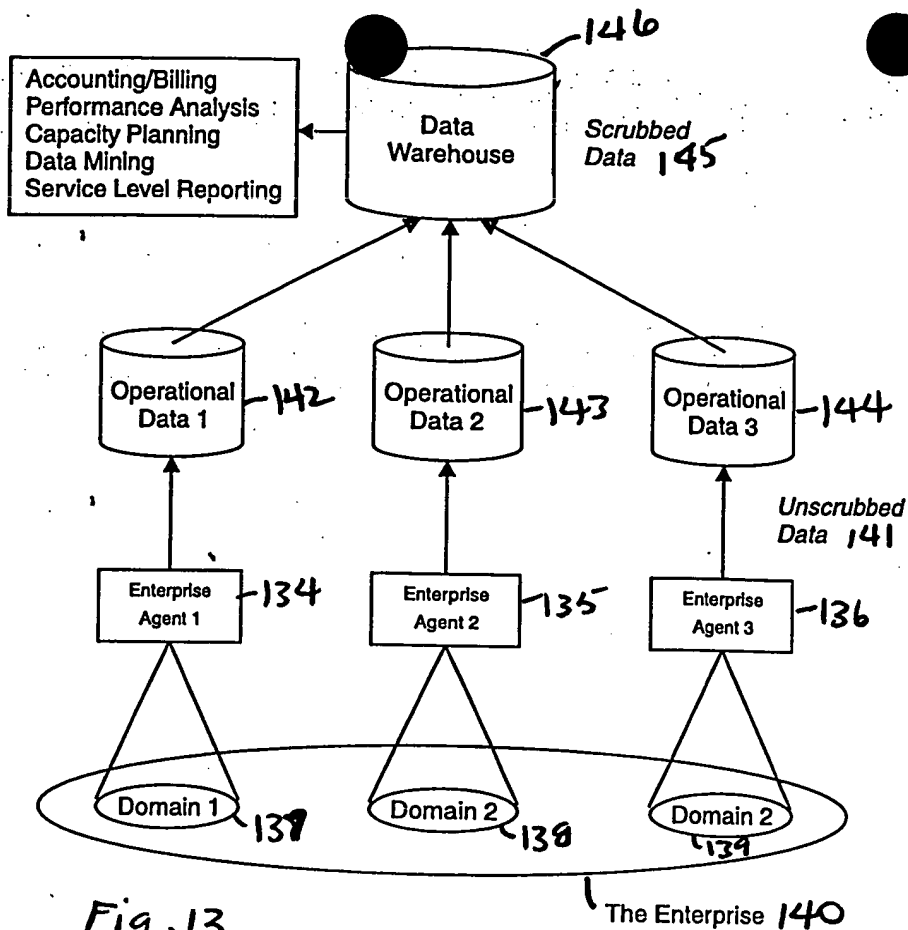


Fig. 13

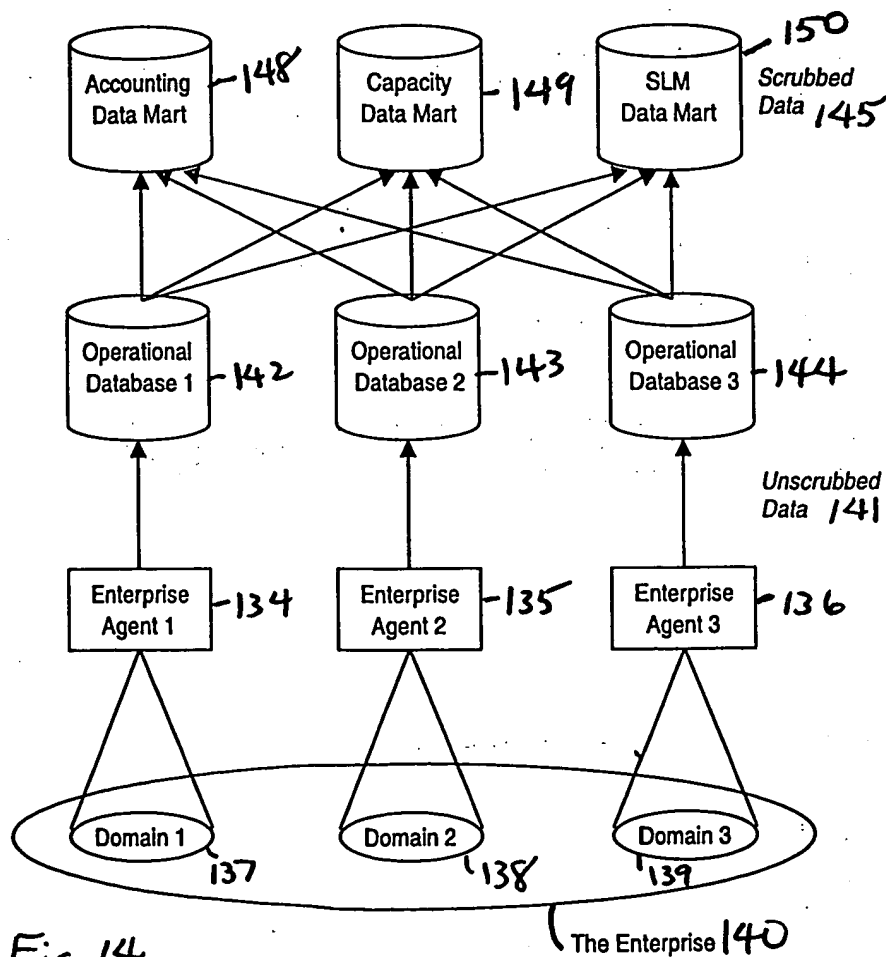


Fig. 14

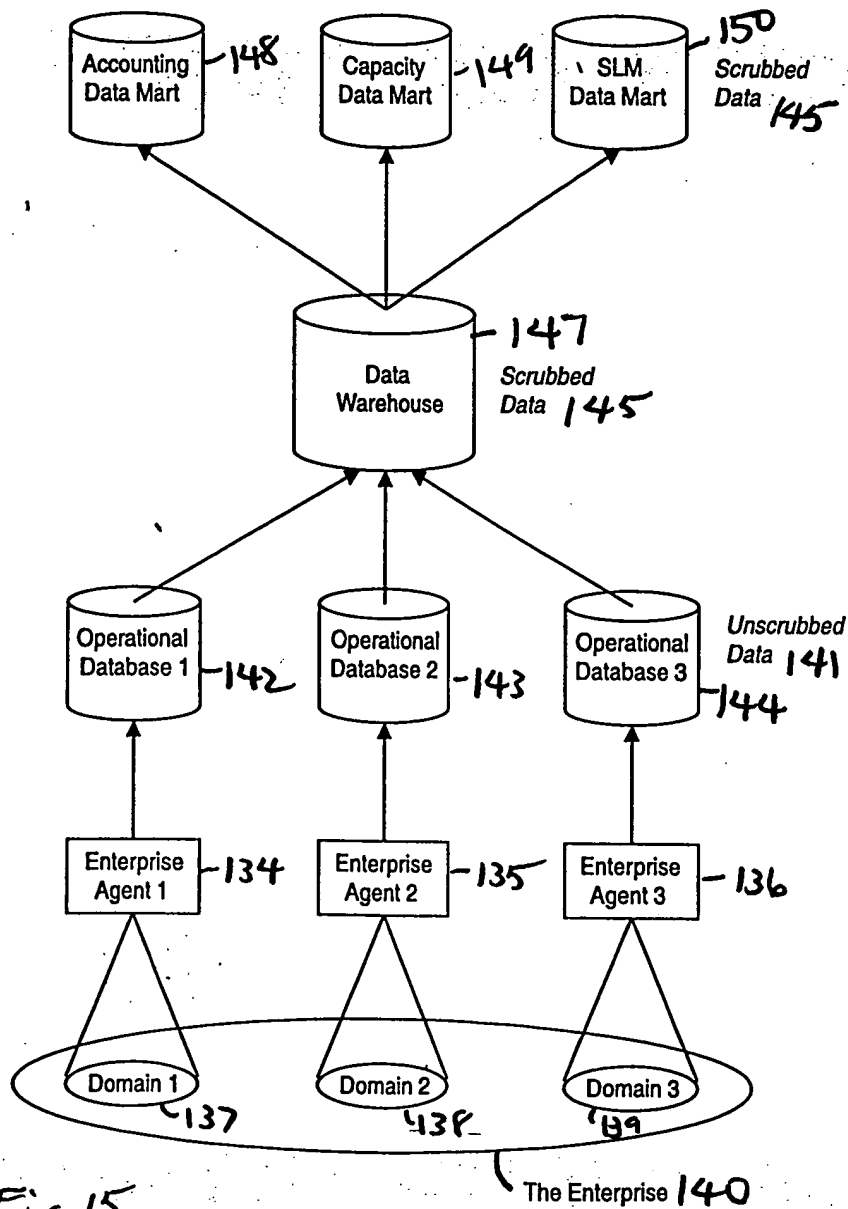


Fig. 15

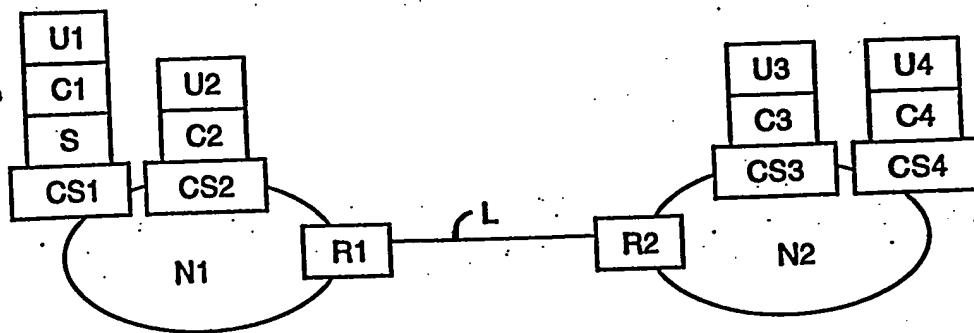


Figure 5.1, Fig. 16

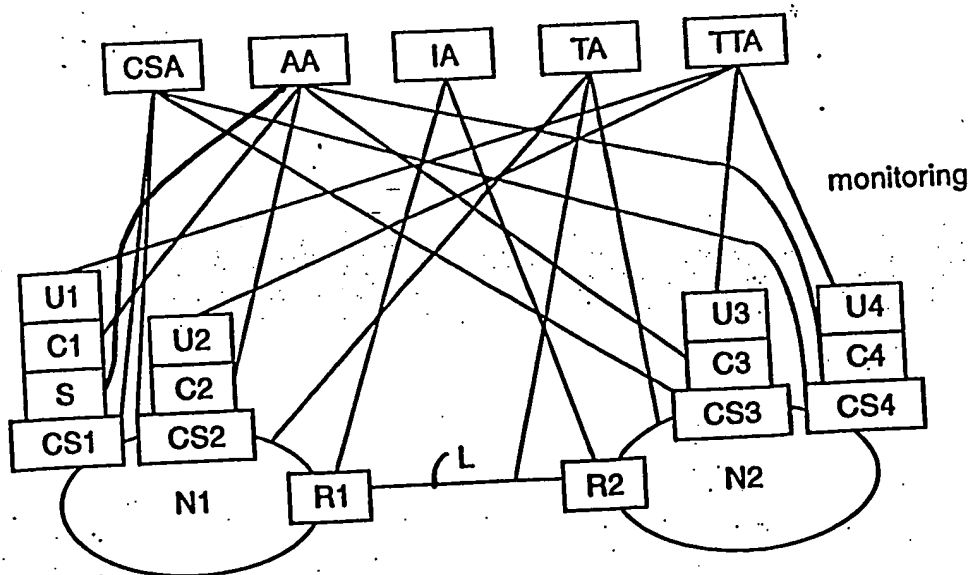


Figure 5.2 Fig. 17

09578156 052300

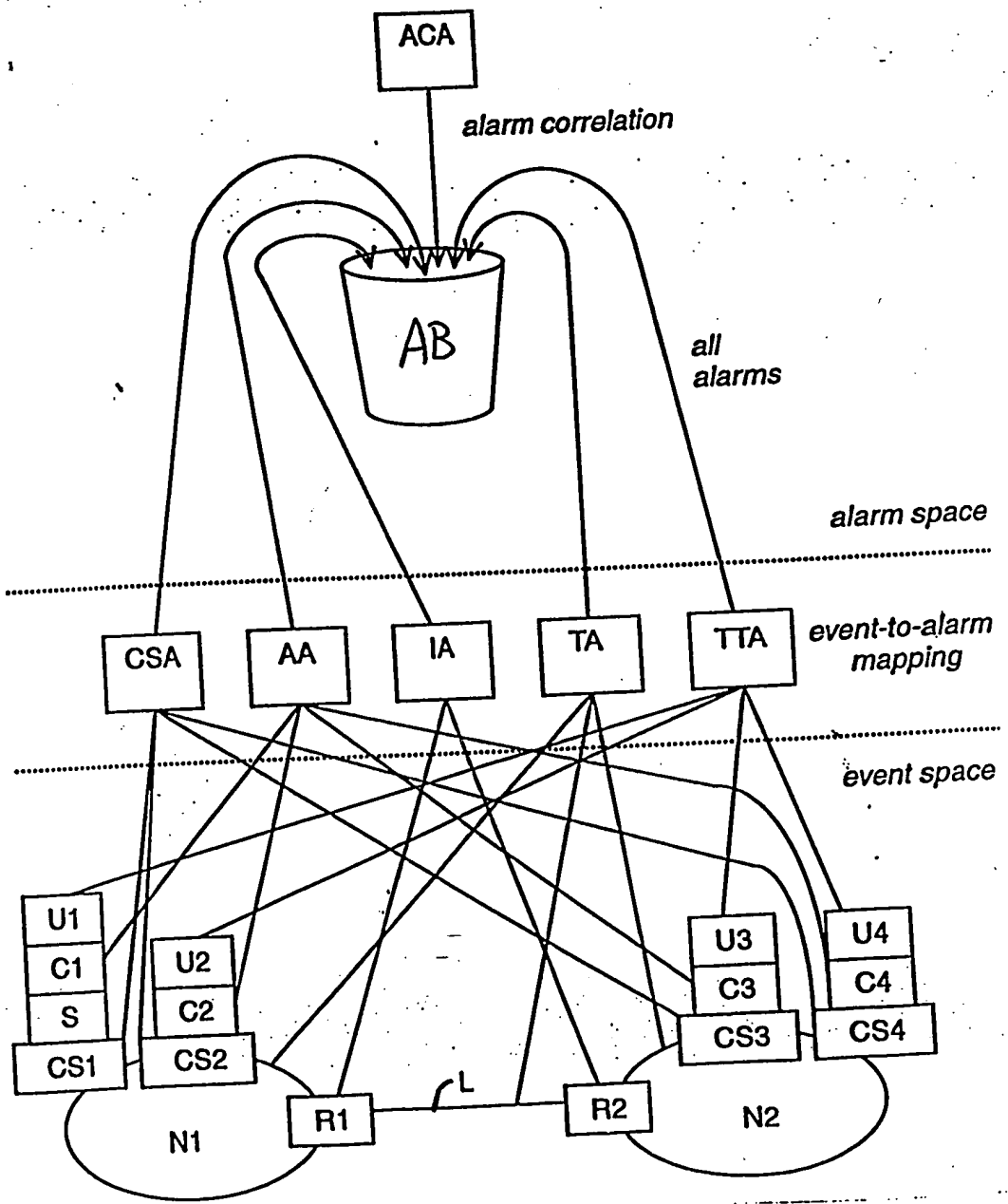


Figure 5.5

Fig. 18

Fig. 19.

Detect events in ~160
the network

↓
For each aspect of network ~161
operation, map event(s) to
alarm(s)

↓
Output alarms to ~162
alarm bucket

↓
Correlate/Evaluate alarms to ~163
determine network operation
status

↓
Report Network operation ~164
status

↓
Identify corrective actions ~165
necessary for desired operation of
network

↓
Implement corrective ~166
actions or report identified
corrective actions

Fig. 20

Detect events for ~167
a specific aspect of network
operation



Map detected events ~168
to an alarm or alarms



Output alarm or ~169
alarms

09578456 053300

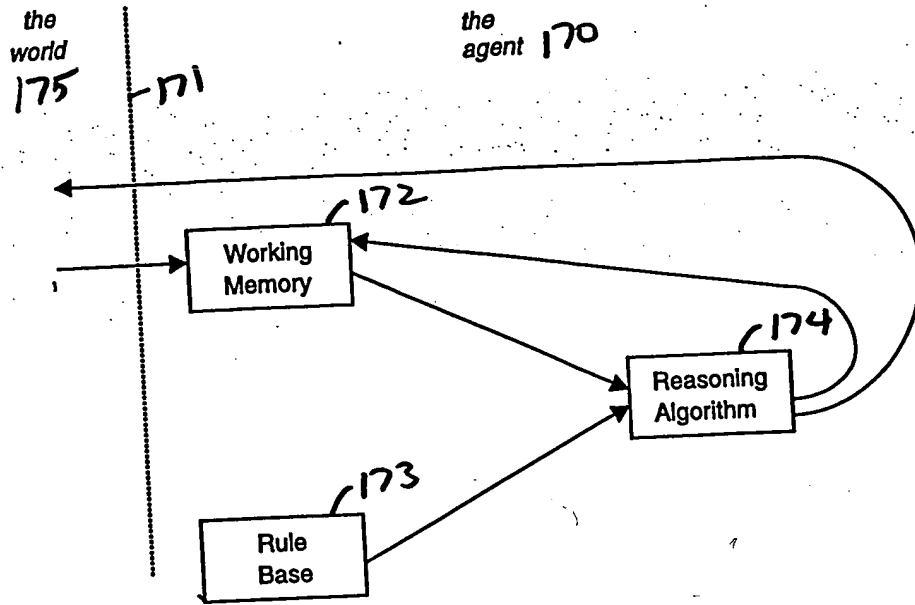


Fig. 21

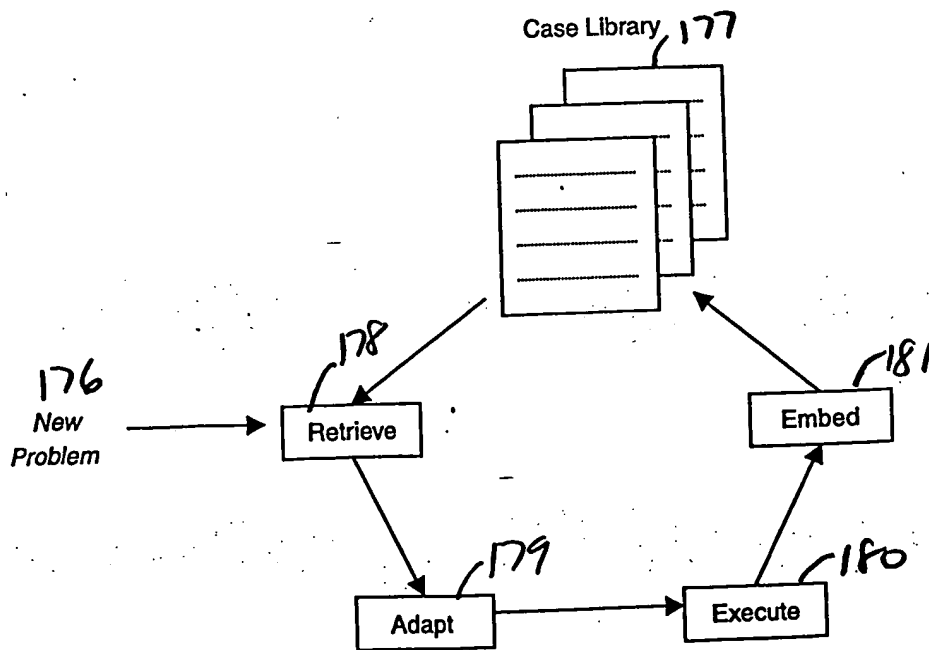


Fig. 22

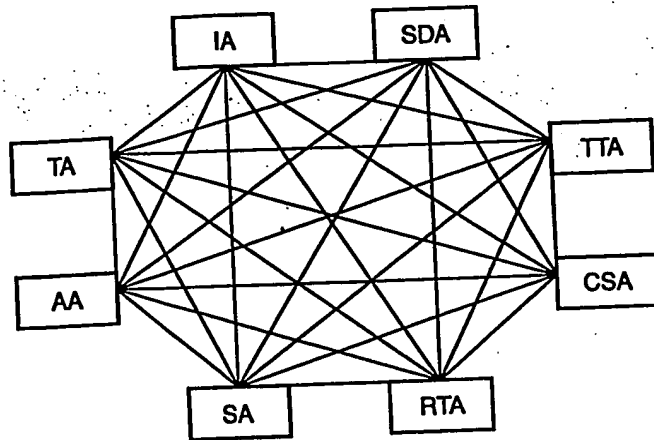


Fig. 23

190

Friday January 5 2001 - 191			
	Service 1	Service 2	Service 3
Seattle			
Bldg 1	Up	Up	Down, up at 12 PM
Bldg 2	Down 8-10 PM	Down 8-10 PM	Down 8-10PM
Bldg 3	Up (Slow)	Up	Up
Sydney			
Bldg 1	Up	Up	Down, up ?
Bldg 2	Up	Up (slow)	Up
.			
.			
.			

Fig. 24

09570156-052300

load	notice
0	alarm
10	alert
20	ok
30	alert
40	alarm

Fig. 25

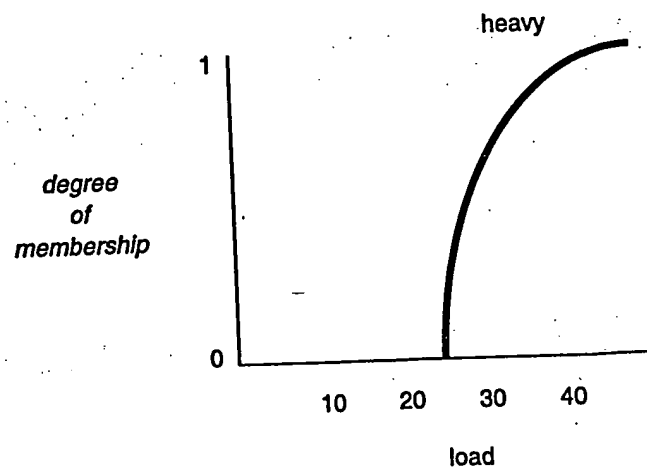


Fig. 26

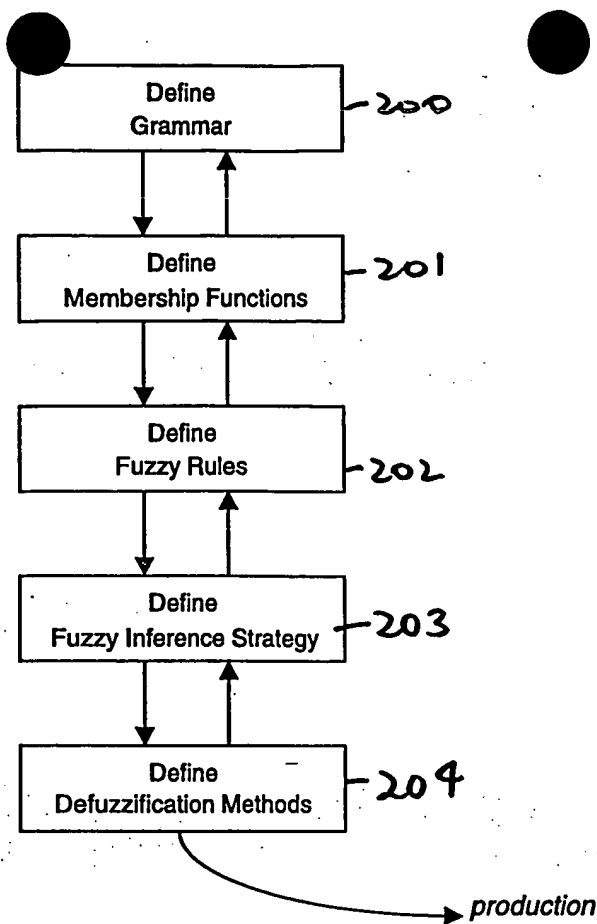


Fig. 27

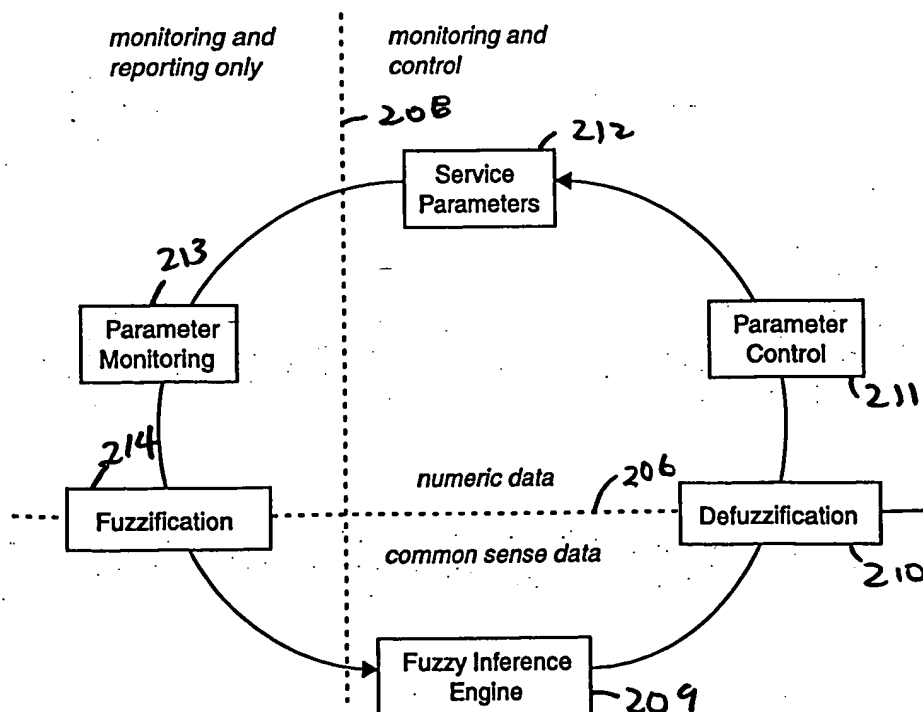


Fig. 28

possible influences on SP ²²⁵

²²⁴ target

	P1	P2	P3	P4	P5	...	PN	SP
t1	---	---	---	---	---	---	---	---
t2	---	---	---	---	---	---	---	---
t3	---	---	---	---	---	---	---	---
t4	---	---	---	---	---	---	---	---
t5	---	---	---	---	---	---	---	---
t6	---	---	---	---	---	---	---	---
.								
.								
.								

²²²

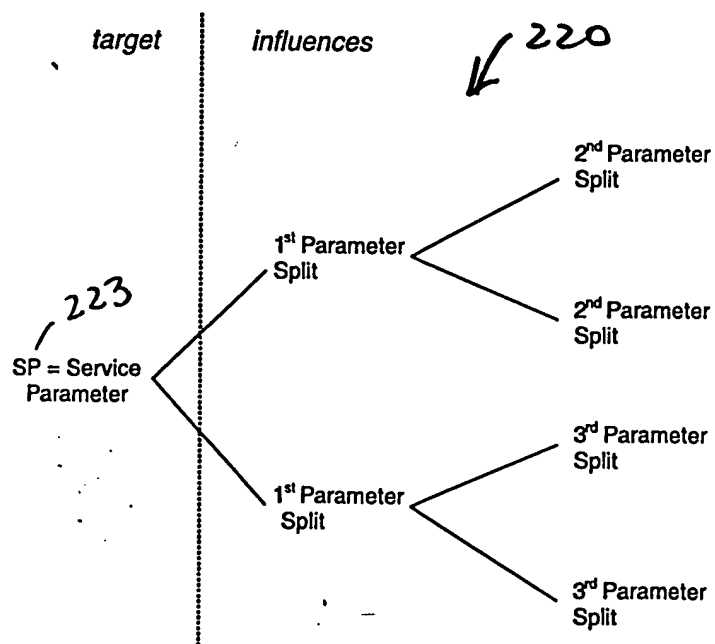


Fig. 29

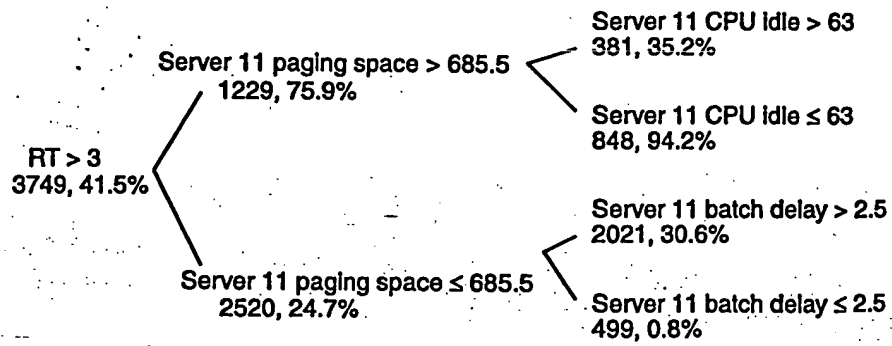


Fig. 30

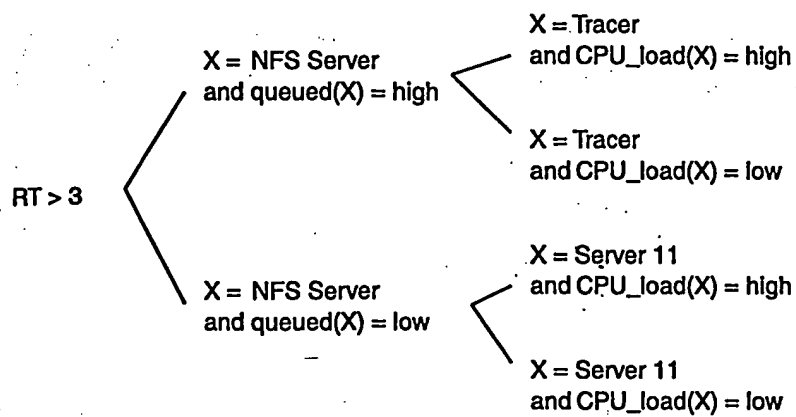


Fig. 31

230

Service Agreement with XYZ Server Farm						
Name						
Address						
Phone						
Email						
Policies						
Availability	___ (select 90 – 100 %)				\$___	
Response Time	___ (select 2 – 5 sec)				\$___	
Security	___ (select high- med-low)				\$___	
Integrity	___ (select high- med-low)				\$___	
					Total: \$___	
Go Back		(Month)			Go Forward	
Default: Availability ___ Response time ___ Security ___ Integrity___						
Send			Cancel			

Fig. 32

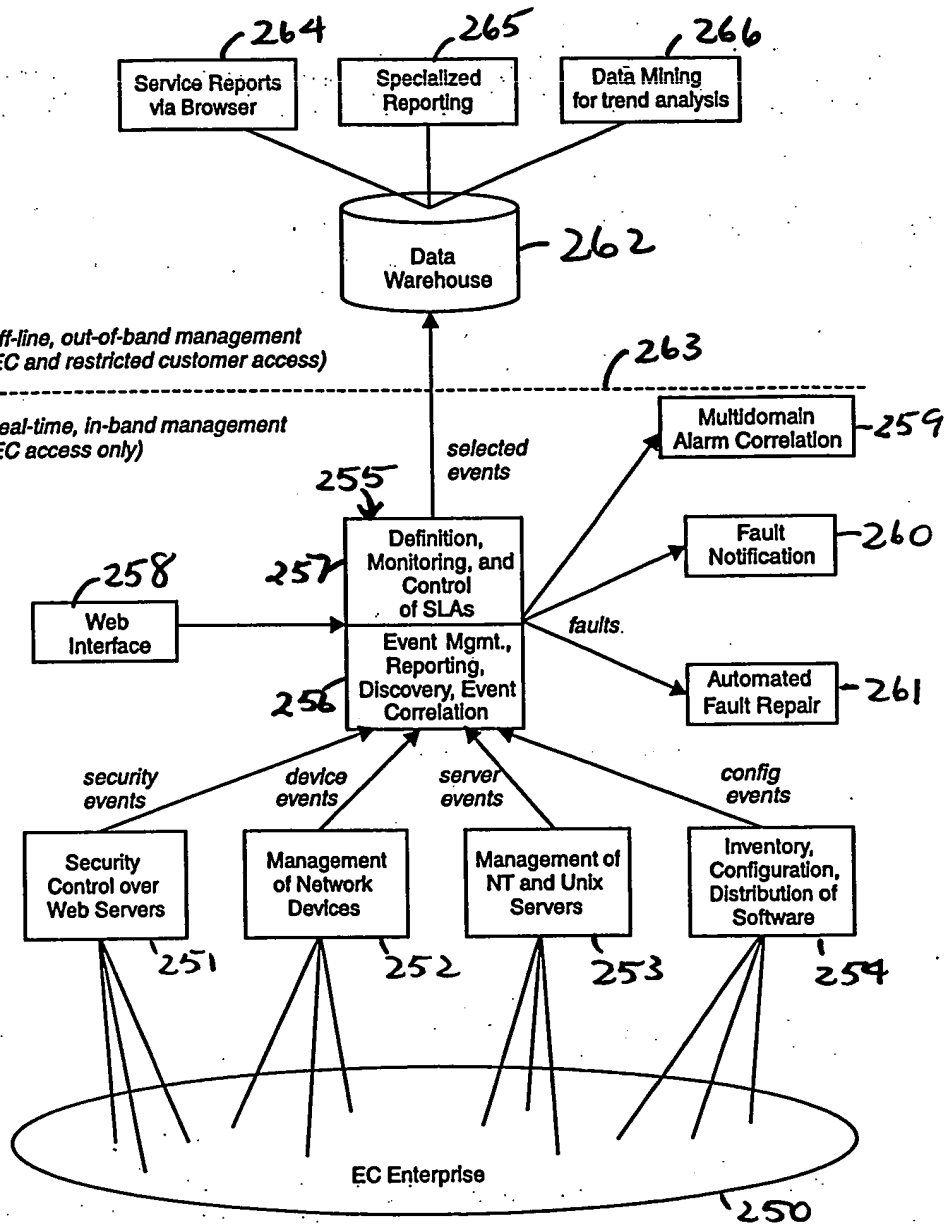


Fig. 33

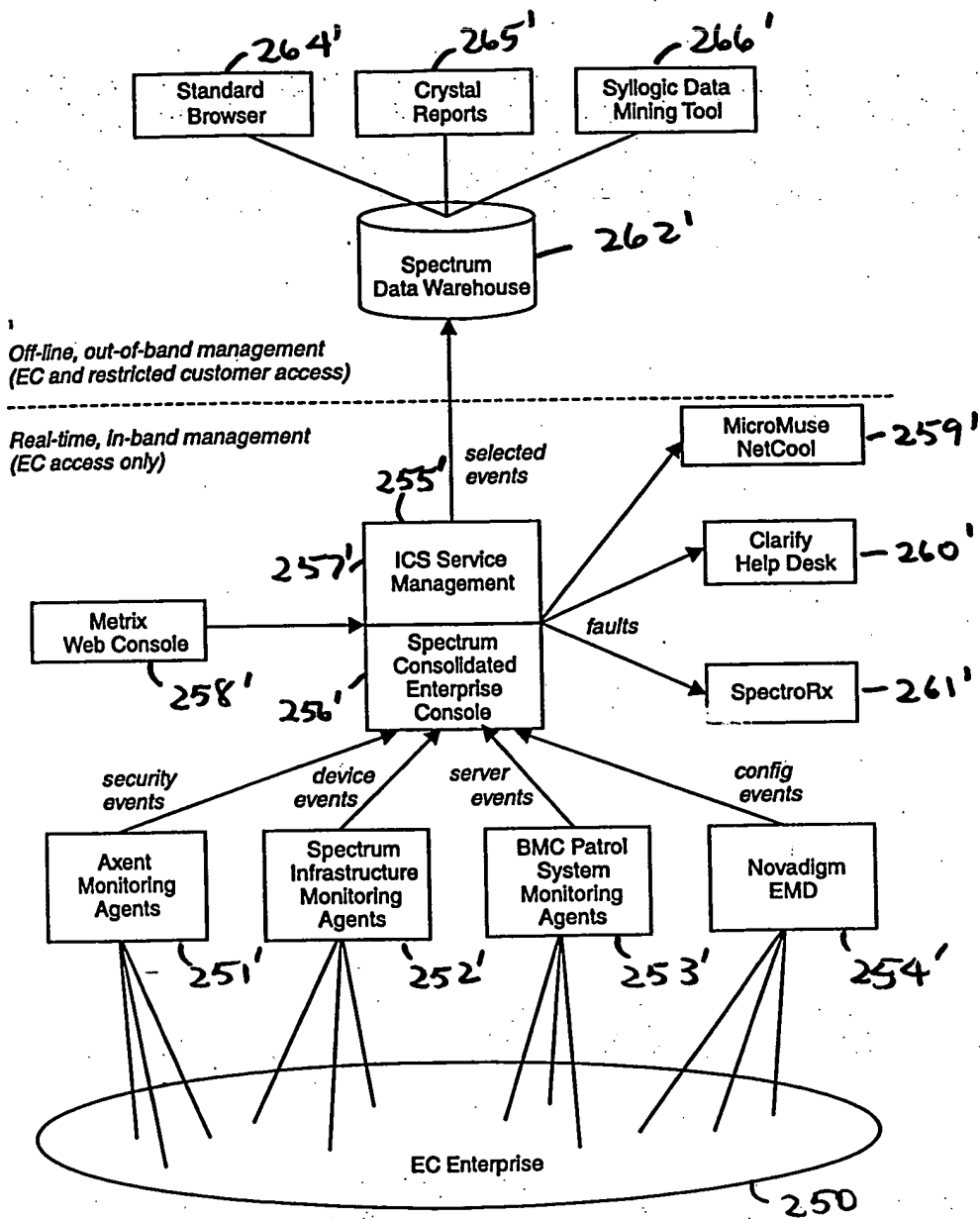


Fig. 34

09578456-052300

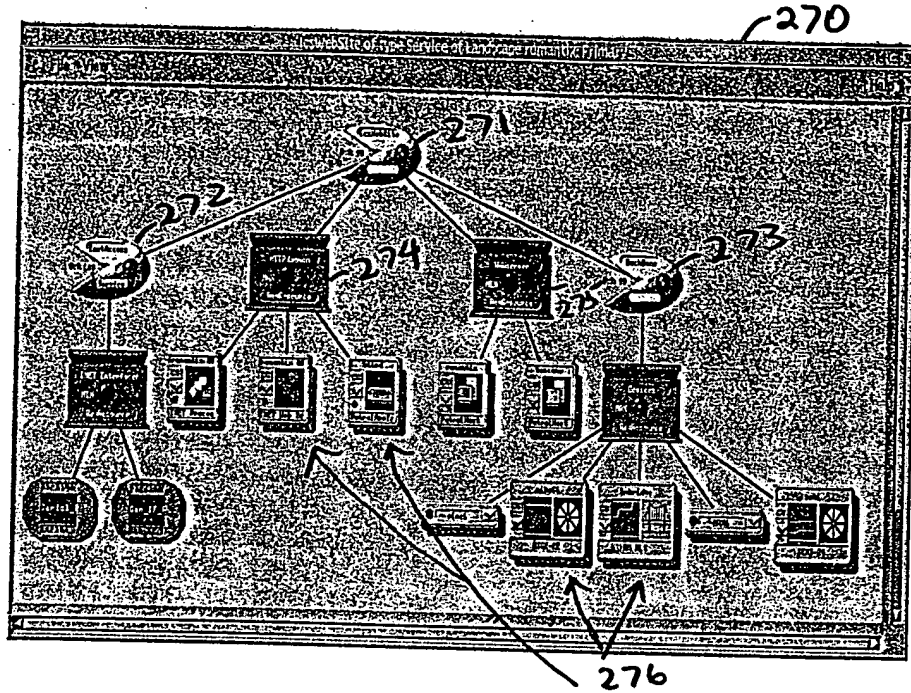


Fig. 35

The screenshot shows a software interface for defining a monitor. The top section, titled "Activity View", displays a table of activity times for each day of the week. The bottom section, titled "Monitor Definition", contains a form for configuring the monitor's parameters.

Day	From	To
Monday	08:30 hrs	17:30 hrs
Tuesday	08:30 hrs	17:30 hrs
Wednesday	08:30 hrs	17:30 hrs
Thursday	08:30 hrs	17:30 hrs
Friday	08:30 hrs	16:00 hrs
Saturday	08:30 hrs	17:30 hrs
Sunday	08:30 hrs	17:30 hrs
Holiday	17:30 hrs	17:30 hrs

Monitor Definition

Monitor Name: Downtime per Week

Fixed Period: 1 Calendar Week

Rolling Period: 1 Minute

Severity: 100

Buttons: Create Monitor, Create Alarm

Fig. 36

05576455 05576455

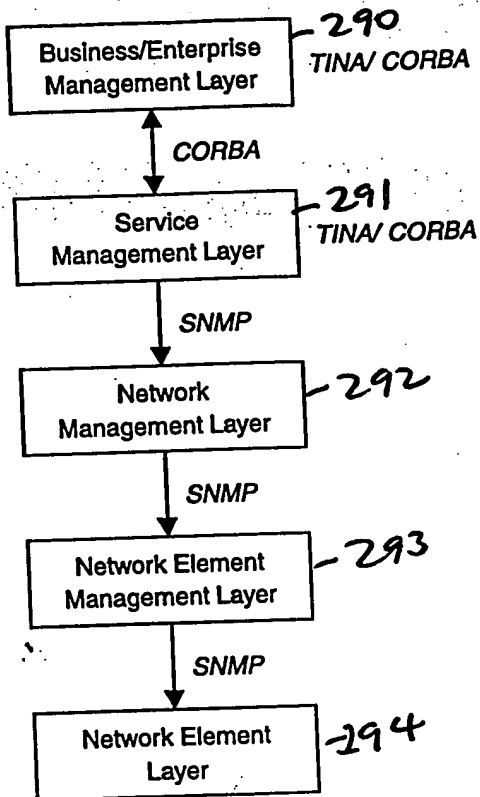


Fig. 37

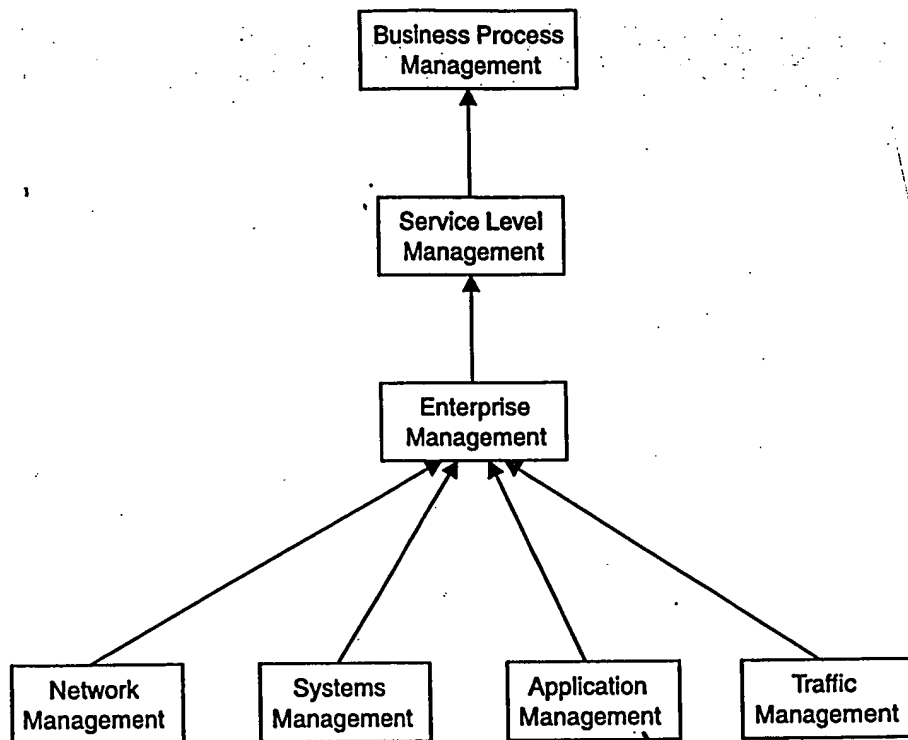


Fig. 38